

Graduate

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**Why science
shouldn't venture
where angels
fear to tread**



**Holy Joe Flavelle?
see page 3**

Herein

Flavelle

BY MICHAEL BLISS

Joseph Wesley Flavelle had only a grade nine education, but thanks to his fascination with U of T, his Queen's Park mansion, once nicknamed "Porker's Palace", now houses the Faculty of Law.



3

Who wants to feel like a billiard ball?

BY DON EVANS

High academic standards aren't enough. First year students should experience a sense of community and have easier access to their professors — especially now that there's a "crisis in enrolment".

6

Ethics

BY NORMA VALE CHRISTIE

The Human Experimentation Subcommittee of U of T's Research Board looks long and hard at proposals for research projects that involve the use of human subjects.

8

Facts & Faces

There are more than 1,000 June 1977 diplomas resident at Student Record Services. If one of them happens to be yours and you don't soon come and get it, it's curtains for the diploma and a \$25 replacement fee for you.

10

Items

That's not junk — it's historical apparatus, insists sleuth Joy Smith.

12

In & Around

Conferences, lectures, sports, concerts, plays, alumni meetings, and a special convocation.

14

Letters

Whatever happened to all that oatmeal?

Some 20 years ago, in 1957, the U of T Outing Club was founded through the initiative of Mary Schader, a student at St. Michael's College.

Mary was the president that year (or the next), followed by Mike Berger, U.C. 670, and Ron Stie, S.P.S. 6T2, to the best of my memory. I was treasurer in 1959-60 when there were 34 paid up members and dues were \$2 per annum. The property of the club included a couple of battered pots and (at the end of that year) some five pounds of surplus oatmeal. I understand that the Outing Club has since become one of the largest and most affluent clubs on campus.

It would be interesting to know what projects the Outing Club now sponsors. Is alcohol still prohibited at outings?

Phil Heiwig, S.P.S. 6T1
St. John's, Newfoundland

Nowadays, the club is large and very active, says its current president, Don Kins. During 1977-78, there were 500 members and dues were \$4 (likely to rise to \$5 next year). Projects sponsored include rock climbing, hiking, canoeing, and cross country skiing, indeed "just about everything you can think of that happens out of doors". Liquor is prohibited, though beer and wine are allowed if purchased by the trip leader and distributed equally among the trippers. There is still a substantial cache of surplus oatmeal.

Jefferys illustrated what Wallace wrote

I am certain that you will receive many letters refreshing Mr. Auerbach's memory ("Letters", spring 1978 issue), which may in turn aid Mr. Stacey's research for his book on illustrator C.W. Jefferys — although in all probability Mr. Stacey is way ahead of all of us.

Anyway, the book referred to by Mr. Auerbach is titled *A First Book of Canadian History* by W. Stewart Wallace, published by the Macmillan Co. Ltd. It was used in Toronto public schools between 1930 and 1934. I suspect that a copy exists in the U of T library. The cover was deep blue, the finish coarse linen, and the book was a relatively thin one, a characteristic of history books most endearing to me then, and now.

Beyond these facts my memory dims (after all, I am just an engineer), but I do recall the detailed drawings of C.W. Jefferys.

N.E. Klinck EPS #73
Calgary, Alberta

They know it well



This year for the first time, senior alumni volunteers are serving as guides for the free, summertime walking tours of the St. George campus that have become one of old Toronto's most beguiling tourist attractions.

Spelling the student guides, Deni Gerson and Joan Vandervelden, are Mary and Hiles Carter, 3T3 and 3T4 respectively; Mary and J. Gordon Coburn, 2T9 and 2T8; Joseph C. Evans, 2T9; Olive Gordon, 3T4; Norma Hecker, 4T9; Jean Hearsi, 3T4; Margaret O'Neill, 3T4; Alice Rutledge, 3T2; and Olive Wood, 4T4.

The hour-long tours, which are sponsored by a generous grant from the U of T Alumni Association, start at Hart House in the Map Room, where a 10-minute videotape presentation introduces visitors to the campus.

The tours began June 1 and will continue until Sept. 1 — weekdays at 10:30 a.m., 12:30 p.m., and 2:30 p.m.

On the Idea of a University

J.M. CAMERON

At a time when the value of university education is being questioned, Cameron provides a fresh perspective on the university's purpose, its form, and its future. He offers a trenchant analysis of the symptoms of the crisis in the modern university and presents some proposals for reform. The four lectures in the volume were originally delivered to mark the sesquicentennial of the University of Toronto and the 125th anniversary of St. Michael's College. \$10.00 cloth, \$3.95 paper

The Grasshopper: games, life, and utopia

BERNARD SUITS

It is at once a serious philosophical study and a remarkably engaging piece of writing. By means of Socratic dialogue between the Grasshopper — the practitioner and exponent of idleness — and his disciples Prudence and Skepticus, the author presents a definition of games and a theory of utopia. The form of the study is a game too, played with great skill. \$10.00

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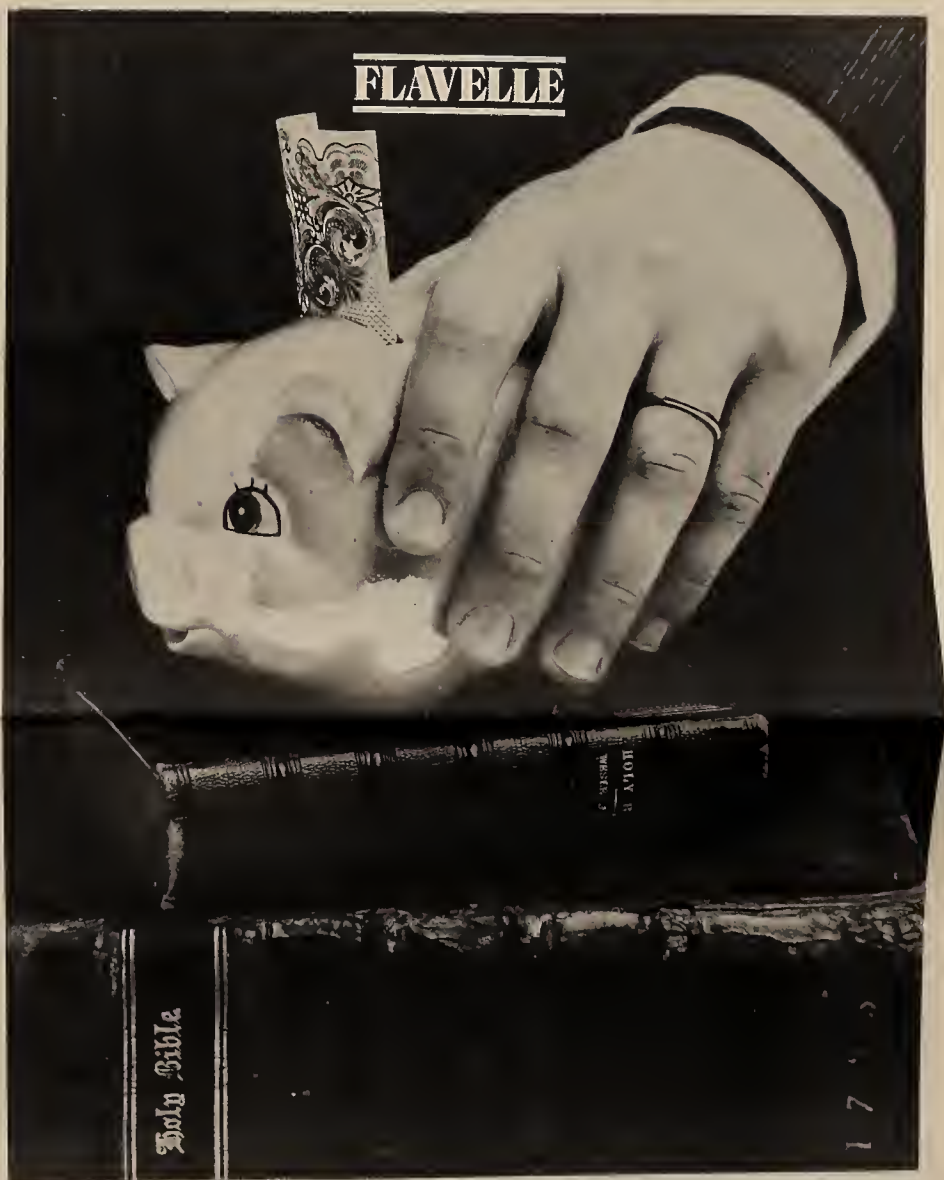
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FLAVELLE



When Sir Joseph Flavelle, Bart., died in 1939 he left his magnificent Queen's Park home, "Holwood", to the University. It was renamed Flavelle House and today, in

beaux-arts splendour, it houses the Faculty of Law. But hardly anyone who arrived at the University after 1939 remembers Flavelle, unless vaguely as a big businessman who got into some kind of trouble about the way he made his money.

Joseph Wesley Flavelle came to Toronto in 1887. He was 29 years old, happily married, and had prospered in the provision business in Peterborough, his home town. He was leaving Peterborough partly because he thought that established provision merchants in Toronto were not doing a very good job, partly because he was being boycotted by hotelkeepers for leading a recent attempt to enforce local prohibition. He was a devout Methodist and, because his father had fallen victim to strong drink, an unusually zealous teetotaler. On the day he leased their first house in Toronto Joe wrote back to his wife, Clara, "So now I can fairly call myself a citizen of this growing city. I bow my head, darling bow yours with mine and pray The Father that we may leave it better and purer than when we came, because we have walked in righteousness and truth."

Flavelle was worth about \$10,000 when he arrived in Toronto. The main chance in his career came in 1892 when William Davies, owner of Toronto's first modern pork-packing factory, invited him to become general manager of his company, and a major shareholder to boot. Davies' bacon factory (parts of which are still standing on Front Street where it meets the Bayview Extension) specialized in shipping sides of premium "pea-led" bacon to England. For a variety of reasons involving American tariffs, the Anglicization of the Canadian hog (longer, leaner, and lighter than its corpulent American counterpart), curing methods, and Flavelle's brilliant management, the bacon business boomed in the 1890s. The shareholders of the William Davies Company found themselves wallowing in profits, with virtually no reinvestment required and no taxes to pay. They took home dividends of 110 percent on their capital in 1897, 100 percent in 1898, 120 percent in 1899, and 82 percent in 1900. By 1902 Joe Flavelle's \$10,000 had swelled to about \$1,500,000 and he was building his Queen's Park mansion, nicknamed "Porker's Palace" by the man in the street.

Flavelle became involved in a number of profitable enterprises around the turn of the century, most of them in association with other Methodists who had come to the provincial capital from the small towns and cities of the Toronto hinterland. This Methodist "mafia", made up

In 1917, he became the most hated man in Canada

by Michael Bliss



Flavelle (right) and two cronies in 1881

Michael Bliss, 672, is a professor in the Department of History. He is completing a term as a member of the Governing Council and as chairman of its Academic Affairs Committee. His new book, *A Canadian Millionaire: The Life and Times of Sir Joseph Flavelle, Bart., 1858-1939*, is being published by Macmillan in September.

of Flavelle, George Cox, A.E. Ames, E.R. Wood, and others, would occasionally go directly from a late afternoon, downtown board meeting to a prayer meeting at Sherbourne Street Church. In 1899 their corporate financings included what have become Moore Corporation and Brascan. They directed a "family" of companies that included the Bank of Commerce, the Canada Life, National Trust, Simpson's and C.C.M. And out of their original investment company, the Central Canada Savings & Loan, they created A.E. Ames & Company, Wood Gundy, and Dominion Securities.

After 1902 Flavelle devoted much of his time and money to improving the civic life of Toronto — making the city better, if not purer. As chairman of the board of trustees of Toronto General Hospital he was the key figure in the building of one of the world's great hospitals in its new location at College Street and University Avenue. As owner of the *Toronto News* he carried out a unique and expensive experiment in public interest journalism, helping to overthrow the province's decadent liberal government. He was a major patron of all of Toronto's cultural institutions — the fledgling Art Gallery, the Mendelssohn Choir, the Royal Ontario Museum — and pillar of most of the city's philanthropies. During the 1920s and 1930s he gave away more than \$2,000,000 to a bewildering array of worthy causes and people. Much of this giving was anonymous, and unlike other millionaires at the time and since, Flavelle would not let his biography be written.

Although he had only a grade nine education — partly because he had only a grade nine education — Flavelle was deeply interested in the welfare of the University. In the early 1890s he, George Cox, A.E. Ames, and the Masseys provided the largesse to equip Victoria College so that it might compete on something like equal terms with University College. Broadening his interests to the whole University, in 1901 Flavelle anticipated the Rhodes Scholarship program by founding a travelling fellowship to support study at Oxford. Then in 1906 he was appointed chairman of a provincial Royal Commission investigating the affairs of the University, which at that time was a troubled, factious institution. The commission's report led to the establishing of a new governing structure, centring on a Board of Governors, which freed the University from the dead hand of Ontario politicians. The province also gave the University a secure income by providing it with a percentage



Flavell House in 1902, when it was called Holwood by its owner. Today it houses the Faculty of Law

of the rising succession duties, and with the appointment of Robert Falconer to the presidency in 1907, the University of Toronto entered into a golden age in its history that lasted until some time in the 1960s.

For the 33 years he served on the Board of Governors, Flavelle was a benevolent grey eminence in the life of the University. To some undergraduates and professors in the 1930s he was a forbidding aristocrat; to members of the Historical Club, such as the young Claude Bissell, he was a fascinating host; to presidents, principals, and deans he was a constant source of sound advice and financial support for good University causes; to the Vic students who struck up a conversation with him at a public lecture one evening and wound up with his limousine for their date that night he was a marvellous old gent.

He was Sir Joseph, Baronet, because of his work as chairman of the Imperial Munitions Board during the 1914-18 war. As czar of the Canadian munitions industry, Flavelle supervised the production of more than a billion dollars' worth of shells, aeroplanes, and other instruments of war. He was the Great War's equivalent to C.D. Howe. In 1916 he told complaining shell manufacturers to "send profits to the hell where they belong".

Six weeks after Flavelle became a baronet in 1917, he became the most hated man in Canada when it was revealed that the William Davies Company was making very large profits on its wartime business. "Holy Joe Flavelle, the Methodist baronet", suddenly became "Old Black Joe, the Methodist bacon bandit". He also found himself being dubbed a "baconet" and a "baconeer", and several species of hog. The charges against the company were incorrect or distorted, and of course Flavelle was hurt. "I want to be known as a business man who with others established a great business and sustained it upon integrity, truthfulness and honest service", he wrote in 1917. "The great body of the press — of the public — of my own church, know me as a convicted profiteer — selfish, greedy and pressing burdens on the poor." Memories of the affair linger to the present.

Largely because of public outrage at wartime profiteering, Canadian policy turned against the granting of titles. Flavelle was the last Canadian domiciled in Canada to receive an hereditary title. He was in semi-retirement in the 1930s, spending most of his time trying to help victims of the Depression, when he was attacked again, this time by a demagogic Minister of Trade and Commerce, H.H. Stevens, who entirely misunderstood the transaction in which Flavelle had sold control of Simpson's to C.L. Burton.

Flavelle had a wide range of other interests. He was an articulate spokesman for private enterprise and conservatism, and a major supporter of the Conservative Party. He founded what was probably the first private research laboratory and in the late 1920s became the first chairman of the Ontario Research Foundation. He was the last chairman of the Grand Trunk Railway and refused Arthur Meighen's repeated attempts to appoint him first president of the CNR. "Sir Joseph touched the life of Canada at more points than any man of his time", a journalist wrote at his death.

The social life of Holmwood was more attuned to talks by visiting missionaries than to grand balls. Flavelle did not drink or smoke, and most enjoyed sitting by his fire reading or playing with his children. To outsiders he seemed a passionless puritan. In fact he was a very Methodist mixture of volatility and self-discipline, vanity and humility, insecurity and self-confidence. Flavelle's life does not support E.M. Forster's notion of "the inner darkness in high places that comes with a commercial age".

In his will Sir Joseph requested that Holmwood be used by the University as a social centre for women staff and students — obviously as a balance to Hart House. The University disregarded the donor's suggestion.



Sir Joseph and Lady Flavelle (right) and their son Ellesworth and his wife

Who Did You Do In the Great War?



"Old Black Joe, the Methodist bacon bandit", as depicted in *Saturday Night* in 1917

Who wants to feel like a billiard ball?



by Don Evans

These are not the best of times for universities. Proclaimed during the affluent Sixties as the panacea for the age, they wrought few miracles and were found wanting. Now they are everywhere berated by the press, beggared by the public purse, and snubbed by potential clientele. Sadly, U of T is no exception.

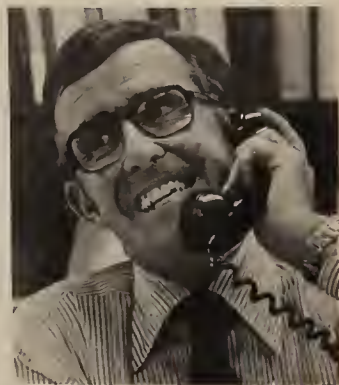
In the first year at U of T, "you feel like a billiard ball". That's student Cathy McDonald's candid opinion and Moss Scholarship winner Jay Lefton would likely agree with her.

"At one time the University was not only a place to go to be taught, but was also a place to go." No longer, says Lefton. "Gone are the days when the atmosphere of this campus fostered in the student a sense of community."

Whatever its failings (and it has its share), there is one thing you'll have to say for the University of Toronto. Unlike many sizeable institutions of one kind or another, it isn't exactly complacent. There are always sufficient idealists, malcontents, and visionaries among its leaders, students, staff, and alumni to keep the pot boiling. A lot of people, for reasons of their own, care about the place.

That was never clearer than during this year's Alumni Advisory Conference, six hours of soul-searching that took place at Hart House in the late afternoon and evening of Friday, May 5. Cathy McDonald and Jay Lefton both participated, she as a member of an anticipated panel charged with examining "the current crisis in university enrolment" and he as one of this year's three Moss Scholars.

If a generally accepted conclusion about "the enrolment crisis" emerged from the panel discussion, it was that the University is going to have to "pull up its socks", as Alan Hill put it. Along with Hill, who is secondary school liaison officer with the Department of Admissions,



Alan Hill, secondary school liaison officer, Department of Admissions: "Parents who are U of T graduates give their kids information about the University that's 20 years out of date, and that doesn't help. But the best and worst publicity we get is from our own students. If, as has happened, a professor stands up in front of a first year class and says, 'This class is too large. Half of you will have to go,' this rudeness goes right back to the high schools. If students are satisfied, that goes back, too."

We're going to have to pay more attention to our first year students

and Cathy McDonald, the panel participants were Dean Ben Etkin, Faculty of Applied Science & Engineering; Rivi Frankle, director of the Career Counselling & Placement Centre; Ralph Caswell, SPS 5T6, who is president of the Parents' Association at Lawrence Park Collegiate in Toronto; and Patti Fleury, P&OT 5T8, who has just completed two three-year terms as an alumni member of the Governing Council, and who served as moderator of the panel.

As most of the panelists were aware, the University of Toronto is more fortunate than some of its younger and smaller cousins around the province. There is little likelihood that the number of places in arts and science will ever exceed the number of qualified applicants. During the past several years, U of T's policy of "steady state enrolment" has meant that the number of candidates for arts, science, and commerce programs has exceeded by a considerable margin the number of vacancies. Though the published minimum requirement for admission to the Faculty of Arts & Science is 60 percent, last year a high school student needed 74.5 percent to be accepted at the St. George campus, and 67.5 percent and 65 percent at Scarborough and Erindale respectively. Next year those figures are likely to be revised to 70 percent downtown and 60 percent at the suburban campuses. This does not mean academic standards are deteriorating. As Alan Hill told the panel's audience, "It simply means entrance requirements are being lowered to a more realistic level."

However, it is a reflection of "the enrolment crisis". There will be a 25 percent drop in Grade 13 enrolment by 1992. The baby boom is over and that means a much smaller pool of applicants for the universities to draw from. To make matters worse, at a time of high unemployment, high school students are becoming cynical about the value of a liberal arts education. Last year, Hill disclosed, there was a 5.5 percent decrease in applicants to arts and science faculties across the province, while community college applications were up by as much as 40 percent in some cases. Unless the government can be persuaded to introduce a new funding mechanism for the universities that is not directly based on enrolments, "the universities will be competing fiercely for arts and science applicants by 1992", Hill said.

Already there is what Hill described as "a civilized war" among the universities to attract first-rate students. U of T must pay more attention to the experience of its freshman population if it is to continue to attract a disproportionately large share of the province's best high school graduates. (There were 4,326 Ontario Scholars in attendance at the

University last year.) "We will have to address the question of the large size of first year classes and see that help is available for first year students who currently have to spend far too much time trying to get assistance from some professors."

Alan Hill was not the only panelist who attacked the assigned topic with candour. Everyone did. "A great many students come to university because of family expectations or inertia, a feeling of 'Well, what else is there to do?'," said Dean Ben Etkin. "It may well be that too many people are attending the universities in the 1970s." Etkin also suggested that the universities might consider combining with the community colleges, to the extent of permitting college students to take some university courses.

"We keep saying there is intrinsic value in a liberal arts education," noted Rivi Frankle, whose office promotes the availability of U of T graduates to employers, "but we should ask whether students really are learning how to be analytical and to make independent judgements."

As a parent and "a financier of the system," said Ralph Caswell, "I'm entitled to be subjective about higher education, and I'm concerned that our counselling is persuading students to attend university for reasons of job security when today, of course, a degree does not ensure financial success."

And Cathy McDonald pointed out that programs to help make newcomers to the St. George campus more at home aren't lacking altogether. Grade 13 students from 150 Toronto area high schools are brought to the campus by individual U of T students for a "preview day", sponsored by the Students' Administrative Council, that lets them experience different types of classes and "helps remove some of the mystique" of the University. At Cathy's college, St. Michael's, alumni are involved in an orientation program for freshmen that is run by students through the college. Faculty participate, too.

Still, much remains to be done if the prevailing sense of alienation among undergraduates is to be dispelled, and one solution resides in the colleges. In accepting his Moss Scholarship at the conference dinner in the evening, John Brown extolled St. Michael's College, where he has been in residence, for the spirit of community it affords its students. Without that spirit, "I could not have considered the University my home," he said. "I derived a meaning for my University life and a sense of identity from the people who make up the college. St. Mike's gave the University a personality, a character, and a sense of warmth."

Not everyone can live in residence, though. As Jay Lefton, another of the Moss Scholars, said in his address, most students "come down to the campus, go to their classes, and then go home. They are strangers to the University: with limited interest, almost non-existent involvement, and no sense of community."

"There is no doubt in my mind that this is one of the finest academic institutions in the country, but I cannot help but wonder whether its students are receiving a complete education — in the fullest sense of the word."

Clearly, if it is to continue to attract top students, the University is going to have to work harder at helping its undergraduate clientele feel more at home. Nobody likes to feel like a billiard ball.

Three Moss Scholars



John Brown and friend



Chancellor Arthur Moore and Jay Lefton



David Falls and parents — when David's father, George Arthur Falls, graduated from Victoria College in 1937, he received a Moss Scholarship that had a cash value of \$300. David's is worth \$4,000. The scholarships are administered by the University of Toronto Alumni Association.

New UTAA executive for '78-'79

The executive of the U of T Alumni Association for 1978/79 was elected at the annual meeting of the association on May 5. E. Helen Pearce, president; Anne Young, past president; Patti Fleury, vice-president — planning; Robert J. Armstrong, vice-president — funding; Douglas C. Appleton, vice-president — University government; Janet Fraser, secretary; Dorothy Helebrust, assistant secretary; E. Douglas Kingsbury, treasurer; and Peter Drake, assistant treasurer.

"An alarming degree of competition" for students among the universities almost certainly will be the result if the enrolment-sensitive funding system is retained, U of T's outgoing President John Evans told the Ontario Council on University Affairs in March. (The council advises the government on university matters.)

"Such a war for warm bodies is not in the interests of the universities or of the students themselves. If enrolments decline six to eight percent, the consequences for the smaller institutions in the province will be absolutely critical, and they will adopt a crisis type of mentality that will have a dramatic effect on institutional co-operation — at a time when such co-operation is essential."

Dr. Evans recommended that as a temporary solution the government eliminate the enrolment base of the funding formula for the next two or three years and adopt some other scheme, such as pre-rating funds on the basis of 1976-77 enrolments. Subjective judgements based on the quality of programs might also be brought to bear, said Dr. Evans, who noted that his remarks were not to be considered as U of T policy statements but personal opinions.



ETHICS

Research on human beings should never be undertaken without first weighing the risks and benefits involved

by Norma Vale Christie

The advances in knowledge that have led to the high standards of medical care we often take for granted have depended heavily on the use of human beings as the subjects of research. Since the staggering revelations of the Nuremberg trials at the end of the Second World War, when the world learned of doctors using concentration camp prisoners as guinea pigs for medical research, the international scientific community has made many attempts to provide a code of ethical standards for research on human subjects.

Some contemporary incidents involving research that abused the rights of human subjects, along with hefty settlements in medical research malpractice suits in the United States, have combined to make the need for formal guidelines that much more imperative, says Professor Gordon Watson, head of U of T's Centre of Criminology. "Apart from the legal implications," adds Watson, "foundations want to support only good research, well done, that does not victimize its subjects."

In response to this need, the federal government's Medical Research Council (MRC) has published *Ethical Considerations in Research Involving Human Subjects*, a report that includes new guidelines to be followed by all institutions receiving MRC funds for research involving human subjects.

One of the report's recommendations is that all research institutions establish ethics review committees, comprised of representatives of both the scientific community and the lay public. Ethics review committees have become fairly common, particularly at institutions with strong medical schools, but U of T broke new ground in 1966 when it established the Human Experimentation Subcommittee of the Research Board, to create policy and oversee the process of ethical review.

"U of T has tended to lead the whole research community in the general concern for ethical problems," says Watson, who is chairman of the subcommittee. "The MRC guidelines are part of the trend to which the University contributed."

The 13 members of the subcommittee, made up of staff from the Faculties of Law, Medicine, Nursing and Dentistry, the Departments of Psychology, Anthropology, and Philosophy, and the Office of Research Administration (ORA), meet three or four times a year to set policy. ORA is responsible for ensuring that the policy is carried out. Every proposal for research involving human subjects is reviewed by ad hoc committees established by ORA.

The person who participates as a subject of research submits to procedures that, however they may ultimately benefit mankind, may also expose the subject to unknown risks. This uneven distribution of risk and benefit, says the MRC report, raises ethical concerns that arise from the moral convictions of our society. They must be considered each time the use of human subjects in research poses a potential infringement of basic human rights.

The procedure to ensure the implementation of ethical standards for research on human subjects evolves in three stages. In the first, the investigator develops a research protocol* with a view both to the needs of science and to the ethical standards of society. In the second, an ethics review committee examines the protocol to see that it meets ethical standards and decides whether the research should be approved. In the third stage, potential subjects are asked to consent to take part in the experiment, and the research is carried out. In contrast to the simplicity of the process are the complex ethical questions that must be weighed.

One of the major ethical dilemmas of research on human subjects is the evaluation of risks and benefits. It is generally agreed that research is ethical only if the benefits outweigh the risks, says the MRC report, but the degree of risk and benefit is often difficult to measure. It must be established that the research is scientifically valid, the use of human subjects essential, and the risks to the subject minimized without jeopardizing the scientific validity of the research.

According to Professor Watson, research involving exceptionally high risk is rarely undertaken.

Pregnant women and fetuses together make up a subject group that poses extra ethical consideration, says the MRC report. Since a pregnant woman and the fetus she carries are interdependent, risk and benefit have to be calculated for both. As a general rule, proposals for research with pregnant women are "pretty conservative" and involve minimal risk, says Barbara Merken, who represents ORA on the U of T subcommittee. Pregnant women are almost always excluded from drug trials, for instance. Research involving a procedure of risk to a fetus is carried out only when circumstances for the fetus are "desperate" and when the procedure might prevent serious damage.

* A protocol is a who, what, why, where, and when of proposed research. Some information normally included in a protocol is a statement of the purpose of the research, a description of the procedures to be used, and a description of the information sought and what the sources will be.

The requirement that those who agree to participate as subjects in research do so of their own free will, armed with all the information they need in order to give informed consent, is another crucial component of ethically acceptable research.

"A subject has given a proper consent when he has freely agreed to serve in the research on the basis of well understood, accurate, and complete information as to its nature, objectives, risks and benefits," states the MRC report.

Although this is the ideal, many factors come into play that can affect the ability of the subject to give free, informed consent.

For example, investigation of children's diseases needs children as subjects. Since a minor cannot give informed consent, responsibility lies with parents or guardians. Until recently the subcommittee has accepted this procedure, says Watson, though questions are now being raised in legal circles as to whether parents or guardians in fact have the right to consent on behalf of their children. Barbara Merkens says, "We can live with the consent procedure as it is, always providing the research procedures are of direct benefit to the child."

Groups such as prisoners, or students, who may appear to be ideal subject populations for research, are under pressures, either real or imagined, that tend to coerce them into consenting to serve as research subjects. Since the possibility exists that a prisoner may subject himself to research in the hope of getting better treatment, U of T does not use prisoners in research. Students are used, although they must clearly be volunteers not involved with the investigator and must understand that if they decline to participate they will in no way be penalized.

The most obvious case in which a person is unable to give informed consent is an experiment in which it is essential that he be unaware of the nature of the research, or even that he is the subject of study. The MRC report says that research of this kind requires scientific justification "of the highest order" and should not be undertaken unless the risk to the subject is negligible. Furthermore, a subject must be fully informed as soon as possible of the aims of the research.

"In certain types of research where it is crucial that the information obtained be of a spontaneous nature, there must be some degree of concealment," says Watson. "However, there are some kinds of research that shouldn't be done at all if they can only be done by deceit."

The MRC guidelines echo Watson's conviction: "Good science is not necessarily good ethics... Moral considerations impose certain limitations upon medical research. Not everything that can be done ought to be done; not everything that is expedient is right. These limitations virtually always override all other considerations."

To Professor Watson, the ethical considerations governing experimentation with human subjects should go beyond the "minimum question of (human) rights".

"It is also the subjects' right to understand the purpose of the research, and their right not to feel they are being manipulated."

"We must make them feel they are more than participants, but also co-workers in the enterprise. We can only undertake this research because someone out there is willing to let us. They trust us and we had better be able to meet them half way."

"If we don't, there is no reason anyone in the world should co-operate with us."

'Consent to participate in research should always be freely given'

About 350 research proposals involving the use of human subjects go through the University's Office of Research Administration (ORA) for review and approval every year. The bulk of proposals come from the Faculty of Medicine, but such other areas as the Faculty of Social Work, the Departments of Psychology and Anthropology, and the Centre of Criminology are also represented.

A committee is established to review each proposal, composed of a lay person from the University chosen by ORA, and two specialists from the researcher's department who are familiar with the work, but independent of the investigator. For a medical proposal, the specialists would be from the Faculty of Medicine and the lay person might be from the Faculty of Law or the Department of Philosophy.

The review committee is primarily concerned with the protection of the subjects and the ethical aspects of the proposal, though it also acts in the interests of the

investigator and the institution. The review is usually conducted by mail, with only about one-third of the studies necessitating a meeting of committee members, and one month is usually required for approval. Protocols are rarely rejected, but according to Barbara Merkens may be sent back for substantial revision. Merkens chairs most of the review committees and she described to the *Graduate* three studies, diverse in nature, but representative of the type of experiments approved by the committees.

An investigation undertaken by Professor Albert Rose of the Faculty of Social Work to study support systems of the elderly is an example of low risk experimentation involving human subjects.

Graduate students under Rose's direction interviewed elderly people living on their own to find out how they take care of themselves and the type of support they get from family, friends, and community agencies. They were questioned on their daily activities, their health care, and how they managed their finances.

As outlined in U of T's *Handbook on the Use of Human Subjects*, the key ethical consideration with a study of this kind "is that the privacy of a person should be invaded only with his consent, and protected at all times. Further, all identified or identifying information obtained from the subject of research is best treated as confidential, and all reasonable efforts should be made to prevent its falling into unauthorized hands."

Ensuring that information obtained from the subject remains confidential is also the key ethical consideration in a Centre of Criminology study conducted by the subcommittee's chairman, Professor Gordon Watson. The study is an investigation of discretionary judgements made by everyone involved in a criminal case, beginning with the officer who makes the arrest, to the judge.

By riding in patrol cars with police, researchers were able to trace the events of a criminal case starting with the arrest. As the case progressed, they interviewed everyone involved — police, witnesses, crown and defence attorneys, judges, and accused. They found evidence of discretionary decisions being made at every level, from the prisoner who decides how much he will or will not admit, to the prosecutor who has to decide on the charges.

The overriding consideration was ensuring the security of the information obtained in the interviews. To this end Watson's group established a coding system that made it impossible to identify the subjects.

Research designed to find out what goes on during a heart attack is being carried out by Dr. R.S. Baigrie, a cardiologist at the Toronto General Hospital and a member of the staff of the Department of Medicine.

Doctors have long understood that a heart attack damages the left ventricle, the main pumping chamber of the heart. However, in a certain type of heart attack damage also occurs to the right ventricle, the smaller pumping chamber. Dr. Baigrie is investigating how often such damage occurs and how serious it is. His findings may enable doctors to improve the treatment of this type of heart attack, which Dr. Baigrie has found to be much more common than formerly supposed.

"For heart attack patients admitted to hospital with suspected damage on the right side, measurement of the right ventricle's pumping action is taken from inside the heart by means of a small plastic tube. This invasive procedure is frequently and routinely used in the detection of other heart problems, but is not a necessary part of the treatment of the patients in this study. It may well yield information that can be applied to the individual's care, but it would normally not be performed unless his condition had deteriorated," says Merkens.

"The review committee carefully considered the potential risks of this procedure, which included the possibility of infection or the development of abnormal heart rhythm, and concluded that the risks were outweighed by the possible benefit to the patient — and the benefit to society in general as a result of the research."

The key ethical consideration, of course, is the ability to give free and informed consent. As stipulated in the handbook "consent to participate in research should always be freely given without coercion, constraint, or inducement, either actual, implied or imagined". A heart attack victim is sick, frightened and under unusual stress.

"The committee will think very carefully before accepting a study approaching someone under stress," says Merkens. "In this case they bent over backwards to make sure the patient understood two things: possible complications and the fact that the procedure was not part of the treatment."



Barbara Merkens chairs most of the subcommittees that review research proposals involving the use of human subjects



"Foundations want to support only good research, well done, that does not victimize its subjects," says Professor Gordon Watson, Director of the Centre of Criminology

Facts & Faces

New \$600,000 Trinity lecture theatre funded by Update



Gerald A. Nash, Q.C., Trinity 4T4, can turn the sod with the best of them, as he demonstrated at a ceremony on April 13 marking the beginning of construction of a \$600,000 lecture theatre at Trinity College, the first capital project funded entirely through the University's Update fundraising campaign.

Nash, who resides in Welland, has been active in the Update campaign in the

Niagara Falls area and is the chairman of the Executive Committee of the Corporation of Trinity College.

update
U

For unearthing the sod, he held a silver spade first used by John Strachan in 1851 when the original college building was set for construction on Queen Street.

Others who pitched in, as representatives of their various constituencies, were W.O. Twiss, co-chairman of Update; Donald S. MacDonald, Q.C., alumni; Professor Helen Hardy, chairman of the Capital Fund Raising Committee; Dr. Hortense Wasteneys, chairman of Convocation of Trinity College; and students Ian Noseworthy and Jane Bowley.

The new lecture theatre will be an addition to the Gerald Larkin Building and will face Devonshire Place. It will accommodate about 200 students and is

meant to strengthen the small college tradition by making it possible for Trinity students to be instructed on college premises.

Thank you, one and all

Alumni have given \$2,259,121 to the University in the last 10 years since the Update fundraising campaign began — "and that ain't hay", as the comedians used to say.

The campaign, which celebrated its second birthday on April 30, has already raised a total of \$20 million, prompting Update co-chairman St. Clair Balfour to comment, "On this same date in 1976, no one could have convinced me that we would have raised \$20 million of our \$25 million goal in such a short time." Without a doubt, Balfour stated, retiring University President John Evans "has been our most effective salesman".

Seven of 12 Guggenheims to U of T profs

Seven of the 12 Guggenheim fellowships awarded to Canadians this year went to U of T faculty members. The fellowships provide funds for scholars, scientists, and artists to undertake a year's continuous work and are awarded "on the basis of demonstrated accomplishment in the past and strong promise for the future".

Thanks to the Guggenheim Foundation, three historians will pursue their individual research interests — Professor Paul Grendler will investigate primary and secondary education in Renaissance Venice; Professor John Keep will write a social history of the Russian army; and Professor Trevor Lloyd will examine

the relationship between the British Labour and Liberal Parties, 1900-1914.

Then there are Professor William McAllister Johnson, Department of Fine Art, who will prepare a critical repertory of graphics at the French salon, 1673-1824; Professor Walter Berns, Department of Political Economy, who will examine the theoretical foundations of the judicial power of the United States; Dr. Irving Fritz, Banting & Best Department of Medical Research, who will conduct studies in spermatogenesis; and Professor J.M. Daniels, Department of Physics, who will undertake experimental studies in solid state physics.

Public should help scientists assess benefits and risks

"The lay community must be involved in scientific decisions," according to Professor Louis Siminovitch, this year's winner of the third annual Alumni Faculty Award from the U of T Alumni Association.

The award, which is already considered one of the most significant a U of T professor can obtain, is given for distinction in one's discipline and service to the University and the community.

Prof. Siminovitch, whose contributions to medical science include collaborative work in liberating infectious viruses by ultraviolet irradiation, is also involved in recombinant DNA research, in which one kind of genetic material is transferred to another. This area of investigation has been much in the news of late because of the potential hazards involved.

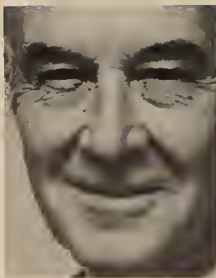
Critics of recombinant DNA research have objected that it could lead to the development of new bacterial strains that have no antidote and that might escape the laboratory. They also fear that it may lead ultimately to experiments in "genetic engineering" in humans.

Prof. Siminovitch conceded that "the experts" don't know what all the risks are in such research and he implored the public to assist scientists in evaluating the benefits and risks of experimenting with genetic material.

Recombinant DNA research does promise to be of great practical benefit, he said. "In my own laboratory, we are showing that it's possible to change normal cells into cancer cells by means of DNA — which indicates that cancer may be transferred by genetic means."

Prof. Siminovitch is chairman of U of T's Department of Medical Genetics and genetical in chief at the Hospital for Sick Children. He is widely known for his contributions to the development of provincial and national research policy and is credited with promoting a better public understanding of science.

Constituency awards were presented to four faculty members for outstanding service to the University and for support of alumni and students. The recipients were: Dean William Alexander, presented by the Faculty of Pharmacy Alumni Association; Professor Emeritus L.E. Jones, presented by the Faculty of Applied Science & Engineering Alumni Association; Professor Nathan Marcus, presented by the Faculty of Social Work Alumni Association; and the Reverend R.J. Scollard, St. Michael's College Librarian, presented by the St. Michael's College Alumni Association.



Top earth prize to ex-Erindale

John Tuzo Wilson, professor emeritus and director of the Ontario Science Centre, has won the 1978 Vellesen Gold Medal, the top award in earth sciences, from Columbus University. Professor Wilson served for seven years as the first principal of Erindale College.

The Vellesen prize, which comes with a cheque in the amount of \$50,000, is ranked in importance with the Nobel Prize. Prof. Wilson won the award for his theories on continental drift, which speculate that the earth's crust, instead of being relatively static, as previously held, consists of plate tectonics that are in constant motion, moving and grinding against each other.

From pharmacy to internal affairs

William Edward Alexander, dean of the Faculty of Pharmacy since 1974, has been appointed U of T's next vice-president — internal affairs, effective July 1.

The vice-president is responsible for the administration of a wide array of University policies, including those affecting student services, community relations, and non-academic personnel, and for advising the President and the Governing Council on such matters. Athletic fees, campus health services, liaison with student societies and organizations, Hart House, and equitable personnel policies for some 4,000 secretaries, lab technicians, grounds-keepers, and other non-academic staff members fall under his purview.

Alexander, 44, received his BSc in pharmacy "with great distinction" from the University of Saskatchewan in 1958. After earning his MSc in 1960, he went to the University of Sydney, where he was awarded a PhD in 1965.

He joined the Faculty of Pharmacy at the University of Manitoba in 1965 and, in 1970, held a joint appointment as associate professor of pharmacy and executive assistant to the president of the university.

He is married and has three children, aged seven, five, and several weeks. This year he was presented with a constituency award by the Faculty of Pharmacy Alumni Association for outstanding service to the University and for his support of alumni and students.

In memoriam: Dr. Charles H. Best

The University has lost one of its most eminent alumni.

Dr. Charles Herbert Best, 79, who earned international recognition when he was 22 as the co-discoverer of insulin, died on March 31 in Toronto General Hospital. Dr. Best was born of Canadian parents on Feb. 27, 1899 at West Pembroke, Maine where his father conducted a general medical practice along the Maine-New Brunswick border. He received his early education in Maine, then came to Toronto where he completed his secondary schooling and entered the University in 1916. His studies were interrupted during the First World War by a tour of duty as a sergeant in an artillery regiment, but he returned to complete his BA in physiology and biochemistry in 1921.

That summer he volunteered to work at U of T with Dr. Frederick Banting, a 29 year old surgeon from London, Ontario who wanted to isolate a substance that he believed existed in the pancreas and could be used to treat diabetes.

The dramatic story of the discovery of insulin by the two young investigators involved three stifling summer months working long hours, and often sleeping in the cramped quarters that served as their laboratory. Unable to spare the time or money to eat out, they cooked their meals over kerosene burners. Best sold his car to buy supplies and feed the animals used in their research.

Then came the discovery that the pancreatic extract they had isolated did restore diabetic dogs to health — a breakthrough that eventually saved or prolonged the lives of millions of diabetics all over the world.

Neither Banting nor Best would accept any financial reward from the production of insulin, but turned the patent rights over to the University for the furthering of research.

Eventually, after earning his MB and working for several years in England, Best returned to U of T to become professor and head of the Department of Physiology and associate director of the Connaught Laboratories. He was a pioneer in the application of heparin as an anti-coagulant drug and in the understanding of the dynamics of the metabolism of fat.

Within weeks of the outbreak of the Second World War, he was in the basement of an abandoned church, collecting blood from volunteers so it could be converted into serum. This was the forerunner of the Red Cross blood transfusion service.

As a surgeon commander in the Navy, Best and his associates found ways to enhance night vision, designed clothes for protection from exposure, and discovered a remedy for motion sickness.

At the end of the war, he returned to the University to establish the Banting & Best Department of Medical Research, which over the years has won international acclaim as a training ground for young scientists.

"Dr. Best was an outstanding scientist, teacher, humanitarian, and world citizen," said Dr. A.L. Chute, professor emeritus of paediatrics and former dean of medicine, in a eulogy delivered at the University's memorial service in Convocation Hall on April 3.

T-holders' dinner set for October

The annual dinner of the Men's T-Holders' Association will take place in the Hart House Gallery Dining Room at 7 p.m. on Thursday, Oct. 26. A cocktail hour will be held in the Gallery Common Room prior to the dinner.

The guest of honour will be Tom Watt, coach of the hockey Blues, who will speak on "Varsity Hockey".

The subscription will be \$12 per person and reservation forms will be mailed directly to the entire membership in mid-September.

In accordance with the association's constitution, an annual general meeting will be held at 5.30 p.m. in the Gallery Common Room to hear several short reports and to elect a new executive.

Association president Tim Turner urges members to mark the date in their calendars and to plan to attend and meet old friends and teammates. Seating will be limited to 75.

Scholarship for P&OT grads

The Physical-Occupational Therapy Alumni Association is pleased to announce that a scholarship will be offered this year. Any interested physiotherapist or occupational therapist who is an alumnus of the University of Toronto please address enquiries to:

Joan Peppiatt, 23 Lacelles Blvd., Apt. 1609, Toronto, M6V 2B9

We don't want them either



Zapl Irene Haller and Richard Swenson destroy another diploma

It one of the over 300 unclaimed December 1976 diplomas in U of T's office of Student Record Services is yours, why not pick it up or have it sent to you by registered mail?

In the first case, you'll need identification; should you send someone in your stead, a signed authorization must be proffered.

In the second case, write to: Diplomas, Student Record Services, 167 College St., University of Toronto, Toronto M5S 1A1.

Enclose a cheque or money order (no cash, please) for \$4 and provide all of the following information, typewritten or printed: your graduation name; address; date of convocation; degree; faculty or

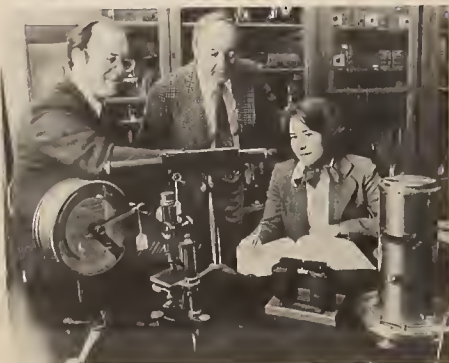
school, and college it applicable; student number. If your name has changed since graduation, please provide some proof of your former name.

All December 1976 diplomas not picked up will be destroyed on September 1, 1978. There is a replacement fee, currently \$25, that will be assessed any graduate who wishes to obtain his diploma after that date.

The office also has more than 1,000 June 1977 diplomas. Following the policy announced in the spring of 1977, that all diplomas will be destroyed one year after production, these will be destroyed on November 1, 1978.

Items

'That's not junk — it's historical apparatus'



Professors Berger (left) and Garland with Joy Smith

Most of us think of historical resources as paper — the diaries, letters, and official records that historians customarily use as a basis for their work. But to Joy Smith, a museology student working on an inventory of the University's historic scientific and technical apparatus, source materials of the past come in all shapes and substances.

In the fields of pure and applied sciences especially, the University's history depends on artifacts. The apparatus that John Loudon bought in Paris in 1878, for example, was used to establish Canada's first physics laboratory, originally housed in the School of Practical Science. In fact, apparatus of one sort or another has been central to teaching and research in all the University's science and engineering departments and these artifacts now comprise an important historical resource.

Until recently, there was no thought of a general policy to house and protect these materials. The University archives collects papers, but there has been no comparable agency to insure that objects are preserved and made available for

study and display. The inventory Joy Smith is working on will change all that. It is the first step in the program of a committee appointed by President Evans this year to survey the University's collections in the history of science and engineering and to make recommendations for their future care and housing. Chaired by Professor Bruce Sinclair, director of the Institute for the History & Philosophy of Science & Technology, the committee's members are Professors Carl Berger of history, Jacques Berger of zoology, G.D. Garland of physics, and F.C. Hooper of engineering science; Don Edward Llewellyn Thomas of medicine, Principal Peter Richardson of University College, University Archivist David Rudkin, and Dr. Lorin Russell of the Royal Ontario Museum.

Besides the equipment still in departmental storerooms, Joy Smith and the committee are eager to learn of privately owned materials that are related to the University's history. In many cases, personal intervention saved items from destruction, and the committee would be very glad simply to learn about them.

Stay in a university residence on the road

Judging by the responses so far, the "Stay in a university residence when you travel across Canada" plan has proved popular with U of T alumni. Over 250 people have written the Department of Alumni Affairs for details and addresses in order to book accommodation.

The program, developed by U of T in co-operation with 13 other universities, is available to all alumni and their families

You can go to the Maritimes or westward as far as Edmonton and Vancouver by hopping from campus to campus. Or, if you prefer, you can stay for a month in one spot — a student residence in Charlottetown, for instance, 20 minutes by car from P.E.I.'s beautiful beaches.

Costs are about 25 percent of the cost of motel/hotel accommodation. Good family arrangements are provided.

Teach English?

The International Student Centre is looking for volunteers to act as teachers/leaders in its English program for students from overseas, starting October 1978.

Each volunteer will be expected to meet a class of fewer than 10 students once per week for a two hour session and to prepare the necessary material in advance. What is covered will depend upon the needs of the group. The leader is expected to encourage class members to converse amongst themselves and to provide the necessary back up practice in pronunciation and idiomatic usage. Various resources — texts, films, outings, speakers — may be used. There is a small library at the centre.

Experience in a related teaching or leadership situation is an asset but is not required. There will be orientation workshops in September.

For further information, contact the coordinator, Eileen Barbeau, at the International Student Centre, 33 St. George St., Toronto M5S 2E3; telephone 978-2038.

Don't downgrade Grade 13 grades

For engineering students, at least, today's Grade 13 marks are a better indicator of how well a student is going to perform at university than the marks that were obtained a decade ago under the provincial departmental examination system.

That's the finding of a recently completed study by the Faculty of Applied Science & Engineering that compared the first year university marks and the Grade 13 marks of more than 2,000 engineering students over a 12-year period.

A major reason for the improvement, says Ben Etkin, the faculty's dean, is that modern day Grade 13 places a greater emphasis on initiative and independent thinking and relies less on learning by rote.



John F. Leyerle

Medievalist is graduate studies head

U of T's Centre for Medieval Studies became "the leading centre for medieval studies in the western world", during the period that John F. Leyerle was its director, says the University's President-designate, James Ham.

Leyerle, who has taught English at the University since 1959, has been appointed dean of the School of Graduate Studies, succeeding Ham, who takes office as President on July 1. Because Leyerle has other responsibilities that prevent his starting work as dean until Jan. 1, 1979, Professor Robert Painter will serve as the school's acting dean in the interim.

Leyerle owns a stone farmhouse in Mono Township and his hobbies, not

surprisingly, include cutting firewood, gardening, and renovating old buildings. His wife, the former Mary Ellen Parry, works in the University's Department of Health Administration. The Leyerles have four children.

Recently elected a fellow of the Medieval Academy of America, Leyerle has been a visiting professor of English at Harvard and Yale, and a senior fellow at Cornell.

He has published extensively, including studies on *Beowulf*, Dante, and Chaucer. In 1975, he wrote *Humane Perspectives for a Changing World*, an interim report to the Canada Council on graduate studies in the humanities and social sciences.

Westward ho!

"The University community takes in more than just those teaching and studying on campus," says Chancellor Arthur B.B. Moore, who recently visited alumni branches in five western Canadian and U.S. cities.

Uris is a community to which all graduates belong," says Dr. Moore. "Our lives and our way of thinking have been affected by the time spent here at the University."

A former principal of Victoria College and moderator of the United Church of Canada, Dr. Moore took office as Chancellor last July 1 and was installed at the November Convocation.

His week-long visit to the West in early March was arranged in conjunction with the Department of Alumni Affairs.

Assistant director Susan Jones says the mission was intended to reinforce links with graduates who might have left they were "not being kept within the family."

"We wanted them to hear from a responsible person in the University... someone with both an overview and an institutional memory. From what I hear, the undertaking was very much worth the effort."

The schedule included dinner meetings in Los Angeles, San Francisco, Vancouver, Victoria, and Calgary. Attendance at the five gatherings totalled about 400.

The Chancellor says he only agreed to make the trip after receiving assurances that "the branches really wanted it" and it was "not just a formality."

"It wasn't just an exercise in nostalgia, but a refreshing of our experience of the community," says Dr. Moore.

"Touching home base is very important. I tried to bring people up to date on the mood and spirit of the campus by telling them about Sesqui events and awards."

President designate James Ham, President John Evans' entrance into politics, and the Macdonald report on unicameral government.

"I also tried to be honest about the difficulties we're experiencing due to financial restrictions, but I wasn't there to appeal for money."

"It's inevitable that a great university such as this will run into some rough patches, but the greatness provides a momentum to carry it through."



Helen Pearce just never stops

Alumni will be represented as never before on the University's Governing Council during the 1978-79 academic year. For the first time, the president of the University of Toronto Alumni Association (UTAA) will have a seat on the council — not so much by fiat or design as by happy coincidence.

Helen Pearce, Vic 517, who was made president of the UTAA at the association's annual meeting on May 5, was one of three new alumni members of the council elected by the College of Electors a few weeks previously. "The others are John P. Hamilton, UC 479, a partner in the Toronto law firm of Weir & Foulds, and Burton A. Avery, SPS 476, director of engineering for the Orenda Division, Hawker Siddeley Canada Ltd.

Married, with four children, Helen Pearce has taught English at two Toronto area colleges and at Central College, and has taken 10 courses toward a master's degree from Trinity College. She has served on the UTAA executive since 1971.

*There are eight alumni representatives on the 50-member Governing Council. In addition, many of the 14 government appointees are also alumni.

John Evans honored in a variety of ways

As John Evans has discovered, when a university president on the verge of retirement from office isn't collecting honorary degrees from other institutions, he's likely to be collecting whimsical gifts like a pair of mismatched running shoes and a four-legged milking stool from well-wishers back home.

A reception in the Great Hall of Hart House on Saturday, May 13 paid tribute to Dr. Evans and his wife, Gay, though mostly in a lighthearted fashion. The theme was decidedly agricultural, in recognition of Dr. Evans' status as a gentleman farmer. Hence the milking stool, which the President accepted with the jibe that he has "always wanted a chair at the University of Toronto."

The running shoes were presented by John Whitten, an alumni representative of the Governing Council, who described himself as the occasion's "token Conservative." The shoes are suitable for running both by the Rideau Canal and through Rosedale, learned Dr. Evans, who will be the Liberal Party's candidate in the Rosedale riding in the next federal election.

A little more than one week later, on Monday, May 22, Dr. Evans was presented with an LLD by Yale University and on Friday of that same week, he was made a Doctor of Humane Letters by Johns Hopkins University.

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December 12, 19, 21; January 2, 23;
February 6, March 5, 17, April 3, 18.



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sharing basis

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March 4, 18, 25; April 1 and 8

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PLUS 15% TAXES/SERVICES
(SINGLES ADD \$150.00) *

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Every 2nd Thursday commencing September 28, 1978 and including Christmas and New Year's Eve. Last departure will be April 15, 1979.



*See travel brochure for full details on inclusions. **See travel brochure for full details on departure dates.

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Conferences & Lectures

9th International Congress on Electron Microscopy

Tuesday, Aug. 1 to Wednesday 9.
Congresses are held every four years, rotating from one continent to another. This will be the first held in Canada and coincides with the 40th anniversary of the construction at U of T of the first successful high-resolution electron microscope in the western hemisphere. Scientific sessions will be held in several locations in the city. Registration desks will be set up at the Medical Sciences Building and at the convention centre, Harbour Castle Hilton Hotel, for daily registration during the congress. Registration fee \$10 per day. Information, 978-2560.
Details of the special Convocation and exhibitions being held at the time of the congress will be found under "Miscellaneous" and "Exhibitions".

International Clarinet Congress/Miscell.

Monday, Aug. 7 to Friday 11.
This annual congress/clinic, being held for the first time in Canada at U of T in the Edward Johnson Building, will consist of lectures, master classes, recitals, and discussions. Lecture demonstrations by internationally prominent clarinetists will examine standard and contemporary music, styles in playing, and instructional techniques.

Fee: Prior to July 29, \$70; after that date, \$75, which may be paid at registration on Aug. 7; special student group fee, \$50 per person for five or more students from same institution; joint registration husband-wife, \$90 per couple. Information and registration, Performance Department, Faculty of Music, University of Toronto, Toronto M5S 1A1, telephone 978-3746.
Details of performances open to the public will be found under "Concerts".

Family Studies:

Teacher and Curriculum Development

Monday, Aug. 7 to Friday 11.
Workshop for elementary and secondary school teachers to explore the responsibility and role of the classroom teacher in curriculum development and to investigate ways of helping individuals and families improve their quality of life through family studies curricula.

Participants will design and develop curriculum materials, including motivational techniques, for their own use. Workshop leader, Dr. Camille G. Bell, chairman of Department of Home Economics Education, College of Home Economics, Texas Tech University. Sessions from 9 a.m. to 1 p.m. each day will cover:

Environmental forces on curriculum in family studies;

Emerging concepts of curriculum development;

Motivational patterns in the classroom, Humanistic evaluation methods appropriate for family studies;

Perspective and potential for future curriculum in family studies.

Registration fee \$100 includes tuition and materials.

Information and registration material: School of Continuing Studies, 158 St. George St., University of Toronto, Toronto M5S 1A1, telephone 978-2400.

Sports

St. George Campus.

The summer athletic program on the St. George campus will continue to the end of August for students, staff, alumni and their families. Instruction in various athletic activities is offered; recreational swimming is also available.

Information and membership rates: Department of Athletics & Recreation, 230 Benson Building, telephone 978-3437.

Erindale College.

Summer memberships are available for the Erindale College community recreation program. A full range of activities is offered including tennis, squash, fitness classes, archery and basketball clinics. Information and membership rates: Athletics office, Erindale College, telephone 828-5269.

Concerts

Carillon concerts.

Sundays from June 27 to Sept. 10.
Heather Spry, University carillonneur and guest artists will give recitals on the Soldier's Tower carillon from 7.30 to 8.30 p.m.

Music in the Quadrange.

Tuesdays from June 27 to Aug. 1.
Quiet pub, folk music in the evening. **Wednesdays and Thursdays from June 28 to Aug. 3.**
Eclectic program of classical, jazz and popular music from 12 noon to 2 p.m. Hart House Quadrange.

Scarborough College.

Two concerts will be given as part of the Early Music Workshop. **Thursday, July 6.**
The Toronto Consort.

Thursday, July 13.
Students from the workshop. Meeting Place, Scarborough College, 8 p.m.

Edward Johnson Building.

Several concerts open to the public will be given during the International Clarinet Congress/Clinic.

Monday, Aug. 7.

Final round in International Clarinet Competition for students 19 years of age or younger. Judges will be members of the congress/clinic faculty; winners will be announced at the end of the concert. Walter Hall, 8 p.m.

Monday, Aug. 7 to Friday 11.
Performances will be given from 11 a.m. to 12 noon, and from 4 to 5 p.m. in Walter Hall.

Tuesday, Aug. 8, Thursday 10, and Friday 11.

Karl Leister, principal clarinet, Berlin Philharmonic; Jack Brymer, principal clarinet, London Symphony Orchestra; and Yona Ettlinger, Guildhall School of Music, London, and National Youth Orchestra, Canada, will each give a concert.

Wednesday, Aug. 8 to 10 p.m.

Tickets \$3. Information and reservations from Performance Department, Faculty of Music, telephone 978-3746.

Plays

Drama Spectrum '78.

Program sponsored by the Graduate Centre for Study of Drama and Dramatic Arts Department of the Faculty of Education, with funding from the Youth Theatre Training Program of Theatre Ontario and the Young Canada Works Program.

Two companies will present plays at Hart House Theatre: The Young Company, which will be composed of pre-professionals from senior years in theatre programs in universities and community colleges; Youthatre, which will be composed of students aged 15 to 20.

Wednesday, July 5 to Saturday 15.
(Preview Tuesday, July 4, no performance Sunday)

"Billy the Kid" by Michael Ondaatje, The Young Company directed by Richard Pochinko.

Tuesday, July 18 to Saturday 22.

(Preview Monday, July 17)
A new play with music devised by members of Youthatre, directed by Gary Schallenberg.

Tuesday, July 25 to Saturday, Aug. 5.
(Preview Monday, July 24, no performance Sunday)

"Henry V" by William Shakespeare, The Young Company directed by Martin Hunter.

Hart House Theatre. 8 p.m. Tickets \$2.50 for Young Company, \$2 for Youthatre. Information and reservations, 978-8668

Weeks of July 17 and 24.

The Young Company will give lunchtime performances out of doors around the St. George campus. Youthatre will tour an out door production around the campus and city.

Exhibitions

Canadian Paintings in the University of Toronto.
Organized in celebration of the Sesqui-centennial, a selection of Canadian works from the period 1915-48 chosen from the collections at Hart House, University College, and Victoria College, including several rarely seen works by the Group of Seven. The exhibition is being circulated by the extension services of the Art Gallery of Ontario and will be on view:

July 7 to 30,
Thunder Bay National Exhibition Centre.
Aug. 8 to 27,
Sudbury Museum and Art Centre.
Sept. 17 to Oct. 8,
Windsor Art Gallery.

Royal Ontario Museum.

To Aug. 31,
"The Embroiderer's Art", fine embroidery from the 16th century to the present.
Pieces displayed include elaborate satin dress attributed to Rose Bertin, designer to Marie Antoinette, and "Spanish" shawls popular in the 20s that were actually made in China.
Textile Gallery, 2nd floor.
To Sept. 10,
"Costume from the World of Islam", complementary to embroidery exhibition, show includes regional costumes, jewellery and other accessories.
Textile Gallery, 2nd floor.

To Aug. 31,
"Chinese Embroidery", complementary to embroidery exhibition, show of selected imperial embroideries of the Ch'ing Dynasty, 1644-1911.
Far Eastern Textile Gallery, 3rd floor.

Sigmund Samuel Canadiana Gallery.
To Sept. 10,
"Early Canadian Faces", portraits painted in Canada from the 1780s to the 1870s. Techniques used range from small cut-out paper silhouettes and miniature water-colours on ivory to large formal oil paintings. Subjects range from the famous to little-known citizens of the Atlantic provinces, Upper and Lower Canada.

Electron Microscopy.
Special exhibitions mounted to coincide with the international congress being held in Toronto and the 40th anniversary of the construction, at the Department of Physics in 1938, of the first successful high-resolution electron microscope in the western hemisphere.
July 12 to Aug. 23,
Display of electron micrographs arranged by the Royal Ontario Museum and Department of Zoology showing the use of the electron microscope in museum and zoological research. Exhibits will include shots of the surfaces of minerals, close-up pictures of water mites, mammal hair, and red blood corpuscles from the mummy Nakhit.
Lower rotunda, Royal Ontario Museum.

From Aug. 1 for several months,
Display including the original instrument built at the Department of Physics, now in the possession of the Science Centre, and electron micrographs and micro-photographs showing some of the uses of electron microscopy in scientific research.

Ontario Science Centre (corner Don Mills Road and Eglinton Avenue East).

Miscellany

Convocation.
Friday, Aug. 4.
Special Convocation to mark the 40th anniversary of the construction at U of T of the first successful high-resolution electron microscope in the western hemisphere. Convocation is being held during the 9th International Congress on Electron Microscopy.
Honorary degrees will be conferred upon: Dr. Cecil E. Hall, Dr. James Hillier, and Dr. James F. Prebus who constructed the instrument in the Department of Physics in 1938;
Dr. Ernst Ruska who, with Dr. Max Knoll, constructed the first electron microscope in Berlin in 1931;
Dr. Keith R. Porter who has made an important contribution to the use of electron microscopy in the biological sciences.
Convocation Hall, 4.30 p.m.

Erindale College Alumni Association.
Wednesday, Sept. 13.
Annual meeting, wine and cheese reception included. Please reply by Friday, Sept. 8, to 828-5217.
Art Gallery, Erindale College, 8 p.m.

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3 July — 21 July, 1978

Le français en famille is a unique opportunity for families to combine a holiday in Toronto with intensive French language study. Emphasizing the development and refinement of conversational skills, courses are offered at three levels: beginning, intermediate, and advanced. A placement test will be administered. The mornings are devoted to classroom work. The afternoons will be spent in a variety of small-group activities, conducted entirely in French, and designed to increase the student's ability to function in French in everyday situations. Evening and weekend activities further emphasize the use of French in practical situations.

Students will be housed in college residences. The use of French in the residences will be encouraged, and families are urged to do homework assignments together, and to speak French when they are 'en famille'.

For more information, contact: The School of Continuing Studies, 158 St. George Street, Toronto, M5S 2V8 (416)-978-2400.



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